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CONTINUING THE PRACTICE OF  
GEORGE H. RICHES AND ASSOCIATES  
ESTABLISHED 1887

April 15, 2004

MAIL STOP NON-FEE AMENDMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria VA 22313-1450  
U.S.A.



Re: DASGUPTA, Sankar; JACOBS, James K.; and BHOLA, Rakesh  
Patent Application in U.S.A.  
Serial No. : 10/661813 Filing Date: September 15, 2003  
Title : Energy Storage Device for Loads Having Variable  
Power Rates  
Our Case : P63902

Dear Sirs:

Enclosed, is a preliminary amendment amending the specification in minor respects and placing on file additional claims. It is believed that the government fees enclosed under separate cover with the response to Notice to File Missing Parts of Nonprovisional Application are sufficient to cover the additional claim fees. If that is not the case, the Office is authorized to charge the agent's deposit account number 18-1350.

The Examiner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to our account number 18-1350.

Respectfully submitted,

Jeffrey Pervanas  
Reg. No. 41,543

JP/cbo  
Encls.  
As Listed Above  
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IN THE UNITED STATES PATENT OFFICE

PATENT APPLICATION

AMENDMENT

Our Case: P63902

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Re: DASGUPTA, Sankar et al.  
Application No. 10/661,813  
Filed: 15 September 2003  
Title: "Energy Storage Device for Loads Having  
Variable Power Rates"

Examiner: to be determined  
Art Unit: 2838  
Toronto, Ontario  
Date: April 15, 2004

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450  
U.S.A.

Dear Sir:

PRELIMINARY AMENDMENT AND COMMENTS

This is a Preliminary Amendment pursuant to 37 CFR 1.115. Please amend this application: (a) to correct the specification as indicated below; and (2) to add new claims 33 to 50. Previously pending claims 1-32 are to be maintained in their current form. Beginning on the next page a clean copy of all claims 1 to 50 with appropriate parentheticals, is set forth pursuant to 37 CFR 1.121(c)(1,3).

IN THE DISCLOSURE

Replace paragraph commencing at line 10, page 24 with the following paragraph:

--In another embodiment, the switch [20] 26 could operate in buck and boost mode permitting the power battery 30 to recharge the energy battery 20, if, for instance, the power battery 30 has been overcharged, such as by the regenerative breaking system 90.--

Replace the paragraph bridging pages 26 and 27 starting at page 26, line 23 with the following paragraph:

--Figure 2A shows a graph plotting the discharge over time of the power battery 30. As shown in Figure 2, the capacity of the power battery 30, which in this preferred embodiment is a lead-acid battery 30, will decrease in steps corresponding to sudden bursts of power 210 being required by the motor 100. The sudden bursts of power 210 will be required, for instance, to overcome inertia, [stationary friction when the vehicle is stationary] to overcome stationary friction when the vehicle starts moving from a stationary state, and also for acceleration. However, once these initial bursts 210 have occurred, the capacity will begin to increase, even though the power battery 30 is supplying power to the motor 100, because the lithium battery 20 is continuously recharging the lead-acid battery 30. In other words, after an initial burst 210 has occurred, and the motor 100 is operating at a steady state moving the vehicle at a fairly constant speed, the non-aqueous lithium battery 20 should be recharging the power battery 30 at a level greater than the power battery 30 supplies energy to the motor 100. In this way, the capacity of the power battery 30 may increase even as it supplies energy to the motor 100 at steady state.--